Tennessee Valley Authority

Government Performance and Results Act Strategic Plan FY1997-2002

Submitted to
Congress
and
The Office of Management and Budget
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Foreword

This Strategic Plan covers fiscal years 1997 through 2002 and fulfills the requirements of the Government Performance and Results Act of 1993. This plan reflects a continuation of TVA's traditional multi-purpose mission with power system functions funded through power sales revenue and continued appropriated funding for TVA's federal resource management responsibilities. This plan integrates TVA's statutory responsibilities for river system management and low-cost power production in keeping with TVA's integrated approach to the management of the entire Tennessee River watershed.



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Introduction

The Tennessee Valley Authority (TVA) is a federal corporation, the nation's largest electric-power producer, a regional economic development agency, and a national center for environmental research.

Congress created TVA in 1933 "...for the purpose of maintaining and operating the properties now owned by the United States in the vicinity of Muscle Shoals, Alabama, in the interest of the national defense and for agricultural and industrial development, and to improve navigation in the Tennessee River and to control the destructive flood water in the Tennessee River and the Mississippi River Basins..."

The Act gave TVA broad powers to carry out its mandate for the unified development of the Tennessee River system and to meet its statutory responsibilities which today include management of the nation's fifth largest river system, 11,000 miles of shoreline, and 435,000 acres of public lands, including Land Between The Lakes National Recreation Area. In the 1950's, TVA was given additional authority to acquire assets required to meet the growing electrical energy needs of customers in its service area. TVA's power system has grown to become one of the largest and most efficient power systems in the country. The TVA power system consists of 11 coal-fired plants, three nuclear plants, 29 hydroelectric dams, and a pumped storage plant. Together these plants provide over 28,000 megawatts of net dependable generating capacity. TVA provides power to 160 municipal and cooperative power distributors and directly serves 67 large federal and industrial customers through its network of 17,000 miles of transmission lines. Through these local independent public power distribution companies TVA supplies the electricity for about eight million Americans across a seven state region. In FY96, TVA earned revenues of nearly \$5.7 billion from the sale of electricity. No congressional funding is required for TVA's electric power business; it is entirely self-funding.

In its early days, TVA electrified rural areas which private utilities were reluctant to serve because they were not profitable. Public power historically has played an important role by focusing on the common good - environmental stewardship, economic development, universal access, reliability, and safety. These are areas where TVA has demonstrated industry leadership and has an impressive track record. Public power has played a huge role in the development of this country's infrastructure and economy. TVA will continue to play an important role as a public power provider and will evolve in the new competitive marketplace to remain a valuable asset for the Valley and the Nation.

Power Program Ten Year Financial Plan

In July 1997, TVA released a Ten Year Financial Plan that focused on positioning its electric power operations to meet the challenges TVA will face in the coming restructured electric marketplace. Unlike a privately owned utility, TVA has no obligation to create profit for stockholders. However, TVA has responsibilities to a variety of stakeholders, and those responsibilities have evolved beyond the original mandate of the TVA Act to accommodate new congressional initiatives and the changing needs of stakeholders. TVA must reassure its customers and, in turn, the citizens of the region, that it will always be a source of competitively priced power. TVA must assure the Congress of the United States that it will not allow its operations to become so financially fragile that its ability to operate solely through the use of revenues generated from power sales is threatened. TVA must assure investors that TVA is a soundly operated business that will continue to be competitive and not require government assistance in meeting its debt obligations. And TVA must assure its employees that it will continue to be a thriving, competitive business offering opportunities for individual growth and challenge.

As the electric utility industry moves toward restructuring, the industry environment will become increasingly competitive and volatile. In anticipation of these future challenges, TVA has taken a number of steps including, ending the nuclear construction program, reducing employment levels by half and increasing the productivity of the workforce, establishing a cap on debt well below the statutory ceiling authorized by Congress, and improving operating efficiencies of its fossil, hydro and nuclear plants to among the best in the nation.

As a continuation of these efforts, TVA has now developed a long-range financial plan designed to accomplish several interrelated objectives.

- First, TVA's total delivered cost of power must be reduced to a level consistent with the forecast of the future market price of power surrounding TVA's service territory.
- Second, TVA must alter its cost structure from its currently rigid, high fixedto-variable cost relationship to a structure that is more flexible and better able to adjust to a volatile marketplace.
- Third, TVA must continue to build customer allegiance and satisfaction for a competitive environment by developing opportunities for mutual support and partnership.

The long-range financial plan addresses each of these objectives in an interrelated manner to assure success by the end of the 10-year time frame. This will require an appropriate balance between TVA's need for financial flexibility, adequate cash flow, minimum required income levels, and competitive power rates. Naturally, future events can upset these expectations and lead to

course corrections, but the financial plan has been built on assumptions that are considered conservative, yet realistic, based upon today's knowledge and predictions for the future. Ideally, the goals of the financial plan will be achieved sooner than the 10-year planning time frame. In any case, the financial plan is not a static document. It will be reviewed, critiqued and, as necessary, adjusted in coordination with the GPRA strategic plan.

TVA's Appropriated Programs

In January 1997, TVA unveiled a proposal to eliminate all federal funding of TVA's appropriated programs in fiscal year 1999. This proposal was an initiative aimed at addressing two key external factors that could significantly affect TVA's ability to carry out its mission: deregulation of the electric utility industry and reductions in federal discretionary spending accompanying efforts to produce a balanced federal budget. The proposal identified navigation, flood control, federal land management, and operation of the Land Between The Lakes National Recreation Area as tax-funded programs that potentially could be transferred to state, local, or other federal agencies.

The Administration supported this proposal and included in its FY98 Budget a directive for TVA "... to study and identify which of its tax-funded programs, projects, and activities are appropriate and in the public interest to continue to be carried out by the Authority or transferred to another State or Federal governmental entity and determine which of the properties (including lands, facilities, equipment, and other property) entrusted to it are no longer necessary for those nonpower programs, projects, and activities identified for continuation or transfer ..."

TVA formed a Task Force to carry out this study and charged it with obtaining and considering input from all of TVA's stakeholders. TVA held 22 public listening sessions in April and May 1997, at locations throughout the Tennessee Valley to collect public comment on proposals regarding taxpayer funding of TVA programs. Over 675 people attended these sessions and 602 written comments were received. The overwhelming response (over 95%) was that these taxfunded programs should continue to be funded by federal appropriations and should continue to be performed by TVA.

Meetings were held with local political leaders and with TVA's distributors. Comments were also solicited via mail and the Internet. In addition, a telephone survey originally planned to help meet GPRA customer consultation requirements was expanded to provide additional input concerning these proposed changes in TVA's mission. The TVA Board and other executives met with House and Senate members and staff to explain TVA's proposal and obtain comments and identify areas of concern.

These consultation activities provided data on stakeholder priorities concerning TVA's tax-funded programs and how TVA could do a better job in meeting stakeholder needs.

As a result of these public and stakeholder consultation activities, alternative proposals concerning funding for TVA's tax-funded programs were generated by the public and elected officials, and the Task Force was directed to consider these alternatives in its study. Comments received from the public and from Congress indicate that many of TVA's stakeholders disagree with TVA's original proposal to relinquish its resource management responsibilities.

At the time of this report, Congress was considering options related to the future disposition of these tax-funded programs. This strategic plan will be revised as needed to reflect the outcome of these deliberations.

MISSION STATEMENT

The mission of the Tennessee Valley Authority is to develop and operate the Tennessee River system to minimize flood damage and improve navigation, and to provide energy and related products and services safely, reliably, and at the lowest feasible cost to residents and businesses in the Tennessee Valley. TVA's integrated management of the entire Tennessee River watershed optimizes the benefits of the water resource. Major functions of the corporation include:

- Management of the Tennessee River system for multiple purposes including (in order of priority) flood control, navigation, power generation, water quality, recreation, and economic development;
- Generation of electricity;
- Sale and transmission of electricity to wholesale and large industrial customers;
- Investment in economic development activities that generate a higher standard of living for citizens of the Tennessee Valley;
- Stewardship of TVA assets and provision of recreation opportunities on federal lands entrusted to the corporation; and
- Research and technology development that addresses environmental problems related to TVA's statutory responsibilities for river and land management and power generation.

TANGIBLE BENEFITS TVA BRINGS TO THE TAXPAYER

TVA exists to manage the Tennessee River system and other resources of the Tennessee Valley seven state region to protect life and property, support sustainable development, encourage economic growth, and maintain a high quality of life for Valley residents. TVA dams and locks are operated as a fully integrated system to deliver multipurpose outputs. Flood control, navigation, and electric power generation are achieved while sustaining a balance between economic progress and protection of the environment. Land Between The Lakes National Recreation Area attracts over 2 million visits each year from all 50 states and many other countries. Public lands are managed to provide flood control, wildlife habitat, and recreation benefits. All of these activities are federal functions that are funded by Congress and carried out by various other federal agencies in other parts of the country. TVA's integrated resource management approach which optimizes the benefits available to all stakeholders and its focus on total quality and process improvement allows TVA to provide these governmental services in the Tennessee Valley in a cost-effective manner.

TVA's power program is not funded by Congress. However, it supports public power distributors and benefits the public by providing highly reliable, low cost electric energy to customers in seven states. Low cost power stimulates economic development and raises the standard of living in a traditionally depressed region of the country.

TVA GENERAL GOALS AND OBJECTIVES

- 1. Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.
- Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energyrelated services at competitive prices.
- 3. Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.
- 4. Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.
- 5. Positively impact the capacity for economic development in the Tennessee Valley region.

STRATEGIES TO ACHIEVE GOALS

- Goal 1 Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.
- Strategy 1.A. Minimize flood damage by operating the river system according to best management practices with flood control as a priority.

Performance Goal: · Flood Storage Availability

Relationship between the General Goal, Strategy, and Performance Goal

Flood storage availability indicates TVA's readiness to control damaging floods. The reservoir system is operated based on mandates of the TVA Act and broad policy last reviewed as part of the Lake Improvement Plan in 1991. Based on these guidelines, monthly flood storage availability targets were established. Operation of the system in accordance with these targets ensures that the priority placed on flood damage avoidance is maintained.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that existing world-class expertise be retained, and that investments in information technology be made as needed to maintain and improve data collection and modeling capabilities.

• Strategy 1.B. Maintain a navigable commercial waterway from Knoxville to Paducah while making system improvements to improve safety and increase shipper savings.

Performance Goal: • Days Navigable Waterway Is Available from

Knoxville to Paducah

Shipper Savings

Relationship between the General Goal, Strategy, and Performance Goal

Commercial shippers rely on TVA to maintain locks and other navigation system components in operable condition and to operate the river system to minimize disruptions to navigation. These performance goals monitor TVA's effectiveness in meeting customer expectations and document the transportation cost savings to shippers using the Tennessee River system.

Achievement of this objective requires that TVA retain responsibility for integrated river operation, that the existing cooperation between TVA and the US Army Corps of Engineers (USACE) be continued, and that resources be available to maintain locks and related facilities. The concrete growth problem at Chickamauga Dam Lock will make it necessary to complete the design and construction of a replacement lock prior to its projected forced closure in approximately 2005. Otherwise, navigation above Chattanooga will be terminated, and the continuous Knoxville-to-Paducah navigable

waterway authorized by the TVA Act and completed by TVA in the 1940's will no longer be provided.

• *Strategy 1.C. Provide acceptable water quality.*

Performance Goal: • Aeration System Availability

Minimum Flow Achievement

Relationship between the General Goal, Strategy, and Performance Goal

Ensuring that aeration systems are functioning and that minimum water flow rates are maintained helps TVA minimize adverse environmental impacts to aquatic habitats and potable water quality associated with dam operations.

Achievement of this objective requires that TVA retain the responsibility for integrated river operation and that cooperative relationships between TVA, state and federal agencies, and various regional river system user groups be continued.

• Strategy 1.D. Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints.

Performance Goal: • Discretionary Zone Attainment

• Conventional Hydro Equivalent Availability Factor

Relationship between the General Goal, Strategy, and Performance Goal

The discretionary operating zone is bounded by the flood guide and the minimum operation guide. Under TVA's river system operation methodology, power value is optimized by operating tributary storage reservoir levels within the discretionary operating zone whenever possible. Conventional hydro equivalent availability factor measures the hydro generation system's availability to provide flexibility to increase or decrease hydro generation without conflicting with higher priorities. If units are unavailable, TVA loses its ability to optimally utilize the natural flow of water provided by the river.

Achievement of this objective requires that TVA retains the responsibility for integrated river operation and maintains the human and information technology capabilities required to provide an integrated daily operating plan based on real-time hydrologic information. It also requires the capability to maintain the operability of TVA's aging hydro generation infrastructure.

• **Strategy 1.E.** Support recreational uses of the river system and associated federal lands.

Performance Goal: • Summer Lake Level Attainment

Percent Occupancy at Campgrounds

Relationship between the General Goal, Strategy, and Performance Goal

In its 1991 Lake Improvement Plan, TVA made commitments to the user public to maintain tributary lakes at specified levels during June and July to support recreational uses which have significant economic development impacts for the Tennessee Valley. TVA campgrounds at Land Between The Lakes, reservoirs, and recreation areas are valued by outdoor recreation enthusiasts. These performance goals measure TVA's effectiveness in meeting the identified expectations of these user communities.

Achievement of this objective requires that TVA retain the responsibility for integrated river operation and for the federal lands associated with the reservoir system and that resources are available to maintain and operate these facilities.

Goal 2 - Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energy-related services at competitive prices.

• Strategy 2.A. Prepare for utility deregulation by reducing TVA's delivered cost of power to 3.4 - 3.5 cents/kWh by 2007.

Performance Goal: • Delivered Cost of Power

Energy Sales Growth

Relationship between the General Goal, Strategy, and Performance Goal

TVA will remain the energy supplier of choice in a deregulated environment only by being able to meet market prices for electricity. TVA's current estimate of the 2007 delivered market price of power in the TVA region is in the range of 3.4 to 3.5 cents/kWh.

Annual targets for delivered cost of power will be established that support the accomplishment of the 2007 target. In addition, native load energy sales growth will be monitored against annual targets to ensure that all the characteristics of TVA's product and service mix (features, quality, availability, and price) continue to meet customer needs.

Achieving this strategic objective will require further development of cost management and operating efficiency competencies and success in reducing TVA's debt (Strategy 2.B). Additional workforce productivity will require process improvements, innovative work structures, and the implementation of technology that allows automation and improved efficiency of facilities.

Strategy 2.B. Increase agency flexibility by altering the TVA cost structure from the current high fixed-to-variable cost relationship to a structure that is better able to adjust to a volatile marketplace.

Performance Goal: • Total Debt Outstanding

Relationship between the General Goal, Strategy, and Performance Goal

TVA will only be able to meet the market price for electricity by reducing its high fixed costs for interest (now about 34% of TVA's total cost of power). As TVA reduces and manages its outstanding debt, thus reducing its interest costs, it will shift its cost structure to one that is better able to adjust to the volatility of a deregulated energy market.

Achievement of this objective will require a reduction in interest costs which requires that TVA maintains its excellent bond rating, continues to develop innovative financing options, and reduces outstanding debt. Debt reduction will depend on TVA's ability to maximize cash flow through limiting capital spending, controlling costs, and continued improvement in operation and maintenance processes which is dependent on a highly skilled workforce.

• Strategy 2.C. Build stakeholder support and value by developing opportunities for mutual support and partnership.

Performance Goal: • Customer Satisfaction with TVA as a Business Partner and Power Supplier

• Wholesale Customers with Continuing Contracts

Relationship between the General Goal, Strategy, and Performance Goal

TVA's wholesale customers, themselves public power providers, must also prepare for the coming deregulated energy market. TVA must be proactive in developing contractual arrangements that provide needed flexibility while ensuring that cost obligations are fairly allocated. TVA's relationships with its customers must benefit all parties in order for TVA to maintain its position as the Valley's energy supplier of choice. The selected performance goals will monitor TVA's performance in developing and maintaining these win-win relationships.

Achievement of this objective will require developing innovative pricing structures that provide opportunities for customers to control their costs and modifying contracting arrangements to provide customers with increased flexibility.

• Strategy 2.D. Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.

Performance Goal: • System Reliability (Load Not Served)

• Fossil Plant Equivalent Availability Factor

Nuclear Plant Net Capacity Factor

Relationship between the General Goal, Strategy, and Performance Goal

As deregulation is implemented, the focus by some suppliers on maximizing profits may have detrimental effects on service reliability. Based on input from customers, TVA will continue to emphasize high reliability while meeting market price. These performance goals will highlight TVA's commitment to ensuring that electricity is available and reliable.

Achievement of this objective will require continued improvements in operating and maintenance processes and the ability to acquire new technologies that improve system performance, such as those identified in TVA's Integrated Resource Plan. A highly skilled, flexible workforce will also be required to provide demanded levels of service at reduced costs.

• Strategy 2.E. Maintain investor confidence that TVA will continue to be competitive and able to meet debt obligations.

Performance Goal: • Bond Rating

Relationship Between the General Goal and the Performance Goals

While TVA has taken actions to cap its debt, there will still be a need to refinance maturing debt. This performance measure monitors TVA's success in maintaining its position as an attractive investment.

Achievement of this objective will require that TVA maintain its excellent bond rating and continue to develop innovative financing mechanisms.

Goal 3 - Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.

• Strategy 3.A. Operate and maintain TVA lands and facilities in accordance with environmental regulations.

Performance Goal: • Reportable Environmental Events

• Environmental Research Center Resource Conservation and Recovery Act Cleanup (Percent Complete)

Relationship between the General Goal, Strategy, and Performance Goal

A reportable environmental event (REE) is any occurrence violating regulatory requirements at any TVA facility that triggers a notification to or enforcement action by a regulatory agency. It is TVA's key outcome measurement of environmental

compliance. TVA is mandated by Federal law to complete the cleanup of contaminated sites at the Environmental Research Center (ERC) reservation in Muscle Shoals, Alabama. The Resource Conservation and Recovery Act (RCRA) Corrective Action Program supports the safe cleanup of contamination caused by decades of federally-funded munitions and fertilizer research and development activities at the ERC.

Achievement of this objective requires that TVA maintain a current understanding of applicable regulations, that federal funding remains available to address the federal liability at the ERC, that operating procedures ensuring regulatory compliance be developed and implemented, that personnel be trained to carry out these procedures, and that a mechanism be in place to verify compliance.

• Strategy 3.B. Improve the hydrologic condition of watersheds in the Tennessee Valley.

Performance Goal: • Hydrologic Units with Resource Condition Maintained Or Improved

Relationship between the General Goal, Strategy, and Performance Goal

There are 603 hydrologic units that make up the Tennessee River watershed. TVA leads cooperative efforts involving local and regional public and private partners to improve water quality by reducing nonpoint source pollution. Annual assessments identify hydrologic unit status by evaluating stream/reservoir ecological health, customer use, and customer satisfaction.

Achievement of this objective requires that TVA maintains cooperative relationships with regional river user groups, that trained personnel be available to identify and implement correction and protection activities, and that TVA retains the capability to conduct hydrologic assessments.

• Strategy 3.C. Manage reservoir lands to protect cultural resources, reduce erosion, and provide wildlife habitat.

Performance Goal: • Critically Eroded Sites Stabilized

Relationship between the General Goal, Strategy, and Performance Goal

TVA's public shorelines are its most visible and accessible land resource. Left unprotected, erosion will result in deterioration of the beauty and value of public shoreline assets, the loss of shoreline and associated wildlife habitat, and increased nonpoint source water pollution.

Achievement of this objective requires that TVA maintains the resources to develop and implement repair and treatment approaches for shoreline revegetation and to manage public lands to provide wildlife habitat enhancements.

Goal 4 - Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission.

• Strategy 4.A. Ensure that TVA dams, bridges, and other structures meet applicable federal guidelines and are maintained in a safe manner.

Performance Goal: • Dams that Meet Federal Guidelines for Dam Safety

Relationship between the General Goal, Strategy, and Performance Goal

TVA is responsible for the inspection, operation, maintenance, and repair of 54 dams built between 1912 and 1980. Concrete growth and deteriorating operating machinery threaten the integrity and operations of spillways, powerhouses, and locks. In accordance with federal guidelines, TVA is modifying its dams to ensure they meet modern-day design criteria for the probable maximum flood and maximum credible earthquake.

Achievement of this objective requires that TVA maintains the human and financial resources required to inspect facilities, assess problems, and design and implement solutions associated with its aging infrastructure.

• Strategy 4. B. Support public uses of federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.

Performance Goal: • Reservoirs with Completed Comprehensive Reservoir Land Plans

Relationship between the General Goal, Strategy, and Performance Goal

TVA manages 176,044 hectares (435,000 acres) of land around reservoir projects spanning seven states. The reservoir system is a nationally important recreation and tourism resource that attracts 110 million visitors per year, who enjoy water-based sports and contribute to a \$1 billion industry. Waterfront properties are highly valued and generate demands for growth that often conflict with the protection of public resources and wildlife habitat. TVA manages these potential conflicts with the use of comprehensive reservoir land plans that establish allowable uses for TVA property.

Achievement of this objective requires that TVA retain the human and financial resources to develop comprehensive reservoir land plans, establish and monitor land use agreements and maintain and operate recreation facilities.

Goal 5 - Positively impact the capacity for economic development in the Tennessee Valley region.

• Strategy 5.A. Create and expand opportunities for business and industrial development in the TVA region.

Performance Goal: • Capital Investment Leveraged

Jobs Created

Relationship between the General Goal, Strategy, and Performance Goal

TVA's power revenue-financed economic development initiatives focus on expanding and attracting industrial and commercial development based on TVA's low-cost, reliable electric power. These performance goals measure TVA effectiveness in attracting capital investment by key public and private partners and the number of new jobs created by firms receiving assistance from TVA or Regional Industrial Development Associations.

Achievement of this objective will require continuing to supply low-cost, reliable electric power, developing partnerships with community and business leaders, providing technical and business services, and marketing the Tennessee Valley power service area.

RELATIONSHIP OF TVA'S GENERAL GOALS AND STRATEGIES TO THE PERFORMANCE GOALS

Performance goals are selected to support attainment of the General Goals and Strategies and are expressed as performance indicators and annual targets. The following table summarizes information from the previous section and demonstrates the linkages between TVA's General Goals, Strategies, and Performance Goals / Measures.

TVA GENERAL GOALS, STRATEGIES, AND PERFORMANCE MEASURES

<u>Goals</u>		<u>Strategies</u>	Performance Measures	
1.	Operate the Tennessee River system to minimize flood damage, maintain navigation, generate electricity, provide acceptable water quality, protect public health, and support recreational uses.	Minimize flood damage by operating the river system according to best management practices with flood control as a priority.	Flood Storage Availability	
		Maintain a navigable commercial waterway from Knoxville to Paducah while making system improvements to improve safety and increase shipper savings.	 Days Navigable Waterway Is Available from Knoxville to Paducah Shipper Savings 	
		1.C. Provide acceptable water quality.	Aeration System AvailabilityMinimum Flow Achievement	
		Optimize the value of hydro generation subject to flood control, navigation, and water quality constraints.	 Discretionary Zone Attainment Conventional Hydro Equivalent Availability Factor 	
		Support recreational uses of the river system and associated federal lands.	 Summer Lake Level Attainment Percent Occupancy at Campgrounds 	

2. Continue to be the electrical energy supplier of choice for customers in the Tennessee Valley by offering adequate supplies of electricity and energy-related services at competitive prices.	2.A. Prepare for utility deregulation by reducing TVA's delivered cost of power to 3.4 - 3.5 cents/kWh by 2007.	•	Delivered Cost of Power Energy Sales Growth
	2.B. Increase agency flexibility by altering the TVA cost structure from the current high fixed-to-variable cost relationship to a structure that is better able to adjust to a volatile marketplace.	•	Total Debt Outstanding
	2.C. Build stakeholder support and value by developing opportunities for mutual support and partnership.	•	Customer Satisfaction with TVA as a Business Partner and Power Supplier Wholesale Customers with Continuing Contracts
	2.D. Ensure that TVA's electric power generation and transmission system has the capacity to meet customer demand while maintaining required levels of reliability and power quality.	•	System Reliability (Load not Served) Fossil Plant Equivalent Availability Factor Nuclear Plant Net Capacity Factor
	 Maintain investor confidence that TVA will continue to be competitive and able to meet debt obligations. 	•	Bond Rating

3. Manage the natural resources of the Tennessee Valley region in an environmentally sustainable manner.	Operate and maintain TVA facilities in accordance with environmental regulations	 Reportable Environmental Events ERC RCRA Cleanup (Percent Complete)
	3.B. Improve the hydrologic condition of watersheds in the Tennessee Valley	 Hydrologic Units with Resource Condition Maintained Or Improved
	3.C. Manage reservoir lands to protect cultural resources, reduce erosion, and provide wildlife habitat	 Critically Eroded Sites Stabilized
 Maintain the value of federal assets entrusted to TVA while supporting their wise use by and for the public in support of TVA's mission. 	4.A. Ensure TVA dams, bridges, and other structures meet applicable federal guidelines and are maintained in a safe manner.	 Dams That Meet Federal Guidelines for Dam Safety
	4.B. Support public uses of federal assets under TVA management that are consistent with statutory responsibilities while protecting the value of those assets for the future.	 Reservoirs with Completed Comprehensive Reservoir Land Plans
 Positively impact the capacity for economic development in the Tennessee Valley region. 	5.A. Create and expand opportunities for business and industrial development in the TVA region.	Capital Investment LeveragedJobs Created

APPROACH TO ACHIEVE GOALS

TVA has always been a results-oriented agency, from its early achievements in flood control and agriculture to more recent accomplishments in river operations and power generation. Anticipating changes in the utility industry, TVA reorganized itself into separate business units for power generation, power transmission, and customer service and marketing with each organization responsible for maximizing results in its area of business. In the past few years

TVA has adopted total quality and process improvement as its driving force and has emphasized continuous workforce learning under the concept of a TVA University.

TVA established a management team headed by TVA's Senior Vice President for Strategic Planning to coordinate TVA's response to GPRA and ensure its integration with ongoing strategic planning and performance measurement activities. For the past several years TVA has established major corporate goals which are supported by critical success factors, key objectives, and performance indicators within each organization's business plan.

TVA uses these same planning and performance management processes for its tax-funded programs. Budget requests for every tax-funded program are developed based on the resources required to achieve annual objectives and specific performance targets. Performance on these indicators is monitored and reported monthly and reviewed by senior management on a quarterly basis, and resources are reallocated as necessary to ensure that objectives are met.

One of TVA's corporate values is Innovation and Continuous Improvement. Employees responsible for delivering power or tax-funded program products and services are constantly working to increase value to customers and stakeholders, improve cycle time, and reduce cost.

TVA management recognizes that a critical factor in the successful implementation of any strategic plan is organizational transformation. Major initiatives in employee education, culture change, and labor relations are underway to prepare TVA's workforce to understand, accept, and implement changes necessary to become a performance-based, competitive organization.

ACCOUNTABILITY

As a federal corporation, TVA is accountable to the President, to Congress, and to the people of the United States for meeting its statutory responsibilities and providing critical federal services effectively and efficiently. TVA's annual budget submission documents for FY97 and FY98 included performance targets that established what TVA would accomplish in its appropriated programs. TVA Board members testify in support of TVA's tax-funded budget before its appropriations committee and at other venues at the request of Congress. All of TVA's programs, both appropriated and power, are designed and carried out to meet the needs of Tennessee Valley residents and visitors. TVA's success in meeting these needs has been documented in the public comment, opinion poll, and focus group results described in this strategic plan.

TVA also emphasizes employee accountability. All TVA management and specialist employees (approximately 22% of TVA's workforce) participate in annual performance standards setting activities that provide a line of sight from

the employee's job duties to TVA's strategic goals. The most critical work tasks required of the employee in support of organizational objectives for that year are documented. Achievement of these objectives is a prerequisite for merit raises and other financial rewards. TVA is working with employee unions to extend the use of annual performance objectives throughout its workforce.

TVA has a Performance Incentive Plan that provides financial rewards based on the achievement of corporate performance objectives in the areas of controlling operating expenses and capital expenditures, improving TVA's customer service, and maintaining a safe working environment. TVA continues to review its compensation systems with the goal of becoming more performance oriented.

Corporate Values are translated into core competencies that are used in developing position descriptions and are evaluated by supervisors in annual performance evaluations and by peers and subordinates through a 360 degree feedback process. These mechanisms serve to reinforce desired behaviors that align with TVA's Values.

These programs emphasize accountability and focus employees on both personal and organizational achievement of performance objectives.

RESOURCES REQUIRED

TVA's power program is completing its tenth year without a general rate increase and is entirely self-funding: since 1959 the power system has paid its own way. Since 1987, TVA has reduced its workforce from 34,000 to approximately 15,000 and tripled productivity. According to <u>Electric Light & Power</u> data, TVA is the second lowest-cost power producer among the nation's 50 largest electric utilities.

TVA has seen similar improvements in productivity in its tax-funded resource management programs. Appropriated headcount has fallen from over 1,900 in 1987 to only 920, and the \$106 million received for FY97 is only 75% of TVA's FY87 appropriations when adjusted for inflation.

The TVA Act gives the TVA Board both the authority and the requirement to set electric rates at a level to cover all power system costs while being responsible to the Act's objective that power be sold at rates as low as are feasible. Therefore, the power system will continue to generate revenues sufficient to meet all power system resource needs. In July, TVA announced a firm power price increase that will result in a 5.5 percent increase in power revenues. This rate increase, the proceeds from which will be used to reduce debt, is a critical part of TVA's strategy to reduce its delivered cost of power to market prices by 2007.

TVA's FY98 appropriated budget request supported by the Administration is \$106 million, the same as TVA's FY97 appropriation. In accordance with TVA's proposal, the Administration's FY99 budget assumed zero TVA appropriations. However, the Administration did not increase funding in any other agency's budget to pay for the Tennessee River Basin resource management functions currently provided by TVA. In order to ensure that funding for these critical functions is not overlooked, and because of the substantive stakeholder comments that support TVA's continuation of these programs, TVA's FY99 budget proposal to OMB requested continued appropriated funding.

In addition to these financial resources, TVA's success in carrying out its mission will require that TVA retain management and operational responsibility for the Tennessee River system and other federal assets crucial to its statutory responsibilities. TVA must be able to develop and retain a highly-trained, increasingly productive workforce. Also, TVA must implement process improvements and innovative work structures, acquire technology that allows automation and improved efficiency of facilities, and develop competencies in the areas of cost management and operating efficiency.

DISCUSSION OF KEY EXTERNAL FACTORS

Utility Industry Deregulation

The restructuring of the utility industry - more precisely, the restructuring of public policy regulating the industry - is leading to dramatic changes in how the industry does business. TVA supports an orderly transition to deregulation because it will provide customers with greater flexibility in choosing their power supplier. One of the choices which should continue to be available to consumers is the choice of public power.

TVA is dedicated to being a leader in price, reliability, and customer service. To assure continued success in a competitive market, TVA has cut costs and improved productivity in all areas of operations. TVA is also aggressively identifying areas for reliability improvements based on analysis of past trends of system and component performance. TVA is aggressively managing its debt and broadening its investor base.

Performance improvement plans have been based on the expectation that deregulation will have significant impact on all operations. Simply stated, the goal is to be the provider of choice. While the ultimate outcome of deregulation in the electric utility industry and its effects on TVA's power program cannot be predicted at this time, the TVA emphasis on performance will continue.

TVA's strategies to reduce its delivered cost of power, reduce its debt, modify its cost structure, and develop more flexible contractual relationships with its

distributors are designed to position TVA for success as the nation decides how deregulation is to be implemented.

TVA will continue to monitor legislative actions at both the federal and state levels as well as actions by investor owned utilities. In addition, TVA will identify potential legislative changes that may be necessary to enable TVA to continue to meet its statutory responsibilities to bring the benefits of low cost power to its customers.

Future Support for TVA Tax-funded Programs

It is recognized that efforts to balance the federal budget, changes in traditional Congressional support for TVA's appropriated programs, and the national debate concerning the proper role of the federal government in regional development, natural resource stewardship, economic development, infrastructure maintenance, and recreation have the potential to impact TVA's ability to achieve its goals and objectives. TVA will continue to identify and implement process improvements and other opportunities to increase efficiencies and further reduce the cost of providing critical federal services to the people of the Tennessee Valley.

SUMMARY OF COMPETITIVE STRENGTHS AND WEAKNESSES

As TVA has developed and considered alternative strategies for success in a deregulated utility environment, it has examined its competitive strengths and weaknesses. A table summarizing these factors is shown below.

TVA Strengths & Weaknesses

Strengths	Weaknesses
 Support from Valley residents for resource management responsibilities Employee expertise and abilities Integrated resource management approach and capabilities Productive relationships with regional natural resource interests International brand equity Low fuel costs Location of transmission system Self regulation / rate setting 	 Aging infrastructure High fixed costs (interest, depreciation) Statutory debt ceiling Low north/south transmission system transfer capability Limitations on energy sales (Fence)
Opportunities	Threats
 Integrated resource development (international market) Distributed generation Transmission hub Independent system operator for transmission Diversified energy services to distributor/direct served customers Generation O&M services (international market) 	 Reduction in federal discretionary spending Predatory price cuts by competition Distributed generation Customer loss Fuel price increases Cost of additional environmental regulation

These strengths and weaknesses, combined with the results from program evaluations and consultations with stakeholders were taken into consideration in developing TVA's goals, objectives, and performance targets.

PROGRAM EVALUATIONS

TVA conducts annual evaluations of the effectiveness of its program performance as part of the planning process. Performance indicators focused on the achievement of program objectives are established and results are tracked monthly and formally reviewed on a quarterly basis. Analysis of performance achieved is one factor used in prioritizing projects for funding in annual appropriated budget submissions and in prioritizing improvement projects and establishing resource requirements.

TVA uses comparative data to identify best-in-class performance levels which are used to evaluate the effectiveness and efficiency of TVA programs. Benchmarking projects are selected to learn how higher performance levels are achieved and whether redesign of TVA processes is appropriate to make similar gains.

TVA also conducts major evaluations of program areas when needed. Recent examples of such major efforts include the Lake Improvement Plan completed in 1991 and Energy Vision 2020, TVA's integrated resource plan completed in 1995 that addressed energy supply issues.

Recent internal evaluations include Shoreline Construction Permitting (Section 26a) and Land Use Permitting processes. In 1997, the TVA Office of the Inspector General carried out a study of Land Between The Lakes to compare similar operations at state and federal facilities. Also in 1997, TVA conducted public opinion polls and focus groups asking stakeholders which tax-funded programs should be continued and their relative importance.

The results from all of these program evaluation efforts are used to identify opportunities for improvement and to set performance benchmarks that drive work process improvement efforts. TVA also utilized this information as the basis for its Performance Plan.

TVA will continue its annual evaluations of program effectiveness based on the performance measures identified in its annual performance plans. Benchmarking against other government agencies and industry will be used to establish best-in-class performance and TVA activities will be measured against the highest standards to ensure that critical services continue to be provided at the lowest cost to the government.

Studies and evaluations to be carried out in the near future include:

Program Activity	Evaluation Methodology	Completion Date
Allocation of costs and benefits of multipurpose reservoir operations activities	Estimation of present value of multipurpose benefits and development of improved cost allocation methodology	FY98
Annual power rate review	Business planning process establishes power system costs and establishes revenue requirements.	Prior to the end of each fiscal year

COORDINATION OF CROSS-CUTTING FUNCTIONS

TVA carries out a number of resource management functions in the Tennessee Valley that are the responsibilities of other agencies in other parts of the country. These functions include:

Federal land management
Flood control
Navigation
Recreation
Water quality
Regulated waterway shoreline construction permitting (Section 26a)
Management of cultural and natural resources

All of TVA's programs are coordinated as necessary to ensure that efforts are complementary and that duplication of effort is minimized. Examples of coordination mechanisms are described below.

TVA and the US Army Corps of Engineers (USACE) have a Memorandum of Understanding addressing responsibility for approving construction along regulated waterways in the Tennessee Valley. TVA and the USACE use a joint application and TVA forwards necessary information to the USACE to support their permitting requirements.

TVA and the USACE share responsibilities for navigation on the Tennessee River System according to a 1962 Memorandum of Agreement (MOA). As owner of the dams, TVA is the lead agency. TVA has primary responsibility for work of a capital nature on the navigation system while the USACE has primary responsibility for operation and maintenance work. The MOA allows the interchange of these responsibilities to provide for efficient and cost effective use of each agency's resources. A separate MOA was implemented in 1991 for the design and construction of a new lock at Kentucky Dam. Since the purpose of this project is to resolve problems associated with the Kentucky-Barkley navigation system, the USACE is the lead agency.

TVA and the USACE work closely to coordinate operations on the Tennessee and Cumberland River systems as appropriate. TVA provides flow forecasts for all projects on the Tennessee River and for Great Falls Reservoir located on a Cumberland River tributary. The USACE provides flow forecasts and release schedules for all other projects on the Cumberland River system, working with TVA power scheduling personnel as necessary to develop detailed hourly release schedules since TVA is responsible for power system transmission from the USACE Cumberland projects. In cooperation with the USACE, TVA also schedules releases from the USACE's Barkley Dam because Barkley and Kentucky Lakes are interconnected by an ungated canal.

During major floods on the Ohio or lower Mississippi Rivers, TVA releases from Kentucky Dam are coordinated through the USACE's regional office in Cincinnati which has flood control responsibilities for the Ohio River.

TVA and the US Coast Guard share responsibilities for navigation system marking on the Tennessee River system. The Coast Guard maintains the marker systems on the primary commercial navigation channel and TVA maintains the system on secondary channels.

TVA conducts activities to monitor and protect threatened and endangered species and maintains critical databases in coordination with the US Fish and Wildlife Service.

TVA conducts site evaluation studies on TVA lands in cooperation with state agencies and in accordance with requirements of the National Archaeological Resources Protection Act and the National Historic Preservation Act, and then obtains concurrence by state Historic Preservation officers as needed.

TVA has discussions with US Forest Service Ranger Districts concerning land located on reservoir projects on an as-needed basis.

TVA coordinates with state wildlife resources agencies on the development of annual wildlife resource plans covering TVA lands under license to the states.

DATA CAPACITY

TVA's data collection and reporting systems are accurate, complete, and timely and have been proven through years of use. In support of its total quality and business planning initiatives, TVA has established thorough and reliable information systems that provide all data necessary to report on identified performance measures. Accountability for data accuracy, completeness, and timeliness is assigned to the sponsors identified for each performance goal.

TVA has submitted performance measures in budget submissions for FY97 and FY98, and included performance data in its draft strategic plan submitted to OMB in the summer of 1996. TVA's data collection and reporting systems provide performance data on a monthly basis, and these data are utilized by TVA managers and employees in the course of doing business.

TVA manages its accounting systems in accordance with Generally Accepted Accounting Principles and is required to have an independent audit on an annual basis. For FY96, TVA received an unqualified opinion from the accounting firm of Coopers and Lybrand.

TREATMENT OF MAJOR MANAGEMENT PROBLEMS AND HIGH RISK AREAS

TVA is not aware of any GAO-identified management problems or high risk areas concerning TVA operations or management. Neither the GAO nor the TVA Office of the Inspector General has identified any significant problems of fraud, waste, abuse, or mismanagement in TVA's programs or operations, and TVA is not identified on GAO's High-Risk List.

DESCRIPTION OF CONSULTATION WITH STAKEHOLDERS

TVA uses many stakeholder consultation mechanisms to gather public comment on proposed tax-funded program and power system initiatives. Data from these consultations are used by TVA in its decision making processes and in identifying opportunities for improving performance. Tax-funded program examples include public meetings and focus groups for individuals interested in flood control, water quality, shoreline management, public land utilization, and lake improvement. The public is invited to review and comment on formal public use plans and associated Environmental Impact Statements for projects like the Chickamauga Lock replacement.

The power system holds frequent meetings with distributor and industrial customers as well as public meetings to discuss issues of general interest such as proposed transmission line routing. A recent example is the process established for completing the December 1995 Energy Vision 2020, a long-term integrated resource plan for meeting future electric power generation needs. As part of this planning process, TVA established a stakeholder review group, held 12 public meetings at various regional locations, and conducted one-on-one interviews with 96 opinion leaders in the TVA region.

In developing this strategic plan, TVA met with all of its major stakeholder groups during FY 1997. These interactions and significant comments received from each group are summarized below.

A. Congress

In accordance with GPRA requirements, TVA met with the following committees prior to the August recess to obtain Congressional input concerning this strategic plan:

House Transportation and Infrastructure Committee Senate Environment and Public Works Committee Senate Governmental Affairs Committee

Based on its initial consultation with these committees, TVA has made significant changes to this strategic plan document. TVA will continue to consult with these

committees as well as its Senate and House Appropriations Committees as this plan continues to evolve.

B. Energy Customers

TVA's energy customers are 160 municipal and cooperative power distributors and 67 directly served industries.

TVA continuously consults with its energy customers to obtain input on TVA products and services as well as key issues affecting the electric utility industry. The TVA Board members and senior executives regularly meet with individual power distributors and distributor and industrial customer associations. Also, TVA's Board Meetings are open to the public and are held throughout the Valley.

In addition, each customer has a high-level account manager dedicated to ensuring quality customer service and addressing key issues. Customer Service Managers each have from 2 to 10 power distributors that they continuously contact to provide information and receive input. Industrial Account Managers, each with 12 to 15 accounts, perform the same function with directly served industries.

TVA has a variety of other methods to gather customer input. Account plan meetings are held annually with power distributors and the Fall Industrial Conference is sponsored by TVA for the directly served industries. Regional and individual power supply meetings are held regularly with power distributors to plan future power system requirements. Power supply meetings are also held with directly served industries as needed. Another method is having distributors participate in focus groups, pilot projects, and joint teams to provide input on new products and services or changes to existing products and services.

Yet another key link with customers is through their customer associations. There are 159 power distributor members of the Tennessee Valley Pubic Power Association (TVPPA). The TVPPA has a committee system that TVA utilizes to obtain input on various issues. Examples include the Rates and Contracts, Electricity Marketing, Power Supply, and Operations Committees. TVA also works closely with the Tennessee Valley Industrial Committee (TVIC), which is composed of the directly served industries.

This year, in conjunction with the public listening sessions held throughout the Valley, TVA executives met with distributors and public officials in each region to discuss TVA's proposal to eliminate federal funding of its appropriated programs. Comments received were in support of TVA continuing its tax-funded responsibilities. In addition, letters received from organizations such as the Association of Tennessee Valley Governments and the Tennessee Valley Public Power Association supported the continuation of federally appropriated funding for TVA's tax-funded programs.

C. Users of Natural Resources

TVA utilized a number of methods to obtain information on the public's opinion on proposals regarding taxpayer funding of TVA's tax-funded programs including:

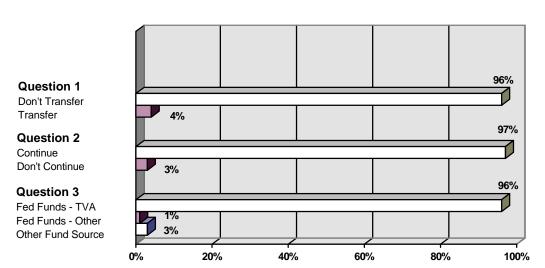
- Public listening sessions
- Telephone survey
- Focus groups
- Toll-free comment phone line
- Internet / electronic mail
- Mail

Over 600 responses were received in April and May through these sources. The public was asked to respond to three questions:

- Are there programs or public services that TVA currently performs that should be transferred to another agency to carry out?
- Are there programs or public services that TVA currently performs that should be discontinued?
- Who should pay for the programs and public services that TVA currently performs?

Of the 600-plus comments received, approximately 220 specifically addressed these questions. The graph shown below summarizes these responses.

Responses to Questions Concerning TVA Non-power Programs



Telephone Survey

TVA utilized a telephone survey to obtain stakeholder priorities concerning TVA's mission. The telephone survey involved 3600 randomly selected residents of the TVA power service area. They were polled on their feelings about the TVA services funded by appropriations. The respondents ranked all TVA services high in importance – an average of 4.2 on a 5 point scale with 1 being unimportant and 5 very important. Respondents overwhelmingly favored funding these services with appropriations (by a margin greater than 5 to 1 on average) and also overwhelmingly favored TVA as the provider (by a margin greater than 7 to 1 on average). Results of this survey are summarized below.

		Continue to Fund with Taxes?**		Should TVA Continue to Provide**?	
Services Funded by Appropriations	Importance Rating*	Yes	No	Yes	Another Group
Dam Safety	4.48	84%	11%	84%	8%
Flood Control	4.47	87%	11%	84%	8%
Resource Management	4.21	79%	15%	77%	12%
Navigation Services	4.10	76%	16%	76%	13%
Reservoir Land Stewardship	3.99	75%	17%	77%	11%
Recreation Services	3.95	69%	23%	74%	15%
Average	4.20	78.3%	15.5%	78.7	11.2%

Based on a scale of 1 to 5 with 1 being unimportant and 5 being very important.

Focus Groups

TVA also conducted focus groups to gather more detailed public opinion data concerning its tax-funded programs. Large group meetings were held in seven Tennessee Valley cities: Cleveland, Kingsport, Knoxville, and Parsons, Tennessee; Huntsville and Sheffield, Alabama; and Murray, Kentucky. Participants in this study were supportive of TVA's tax-funded services, feeling strongly that they contribute to the quality of life in their areas. Participants also provided rankings of the relative importance of the tax-funded services provided by TVA. The most highly valued services were clean water, dam safety, and flood control.

^{**} The difference between each set of 2 columns and 100% is due to Unsure/Don't know responses.

Other Consultations

TVA interacts with special interest groups such as environmental organizations and lake user groups on a frequent basis. Formal public participation efforts such as those associated with TVA's Shoreline Management Initiative, Lake Improvement Plan, and public use plans are used when program-specific public input is needed.

Data from all of these sources were used in developing this strategic plan and establishing TVA's FY99 budget request and the associated performance targets to be accomplished.

D. Investors

TVA initiated an Investor Relations Program in 1996 to assist TVA's Treasurer in attracting and retaining investors, which results in lower costs to TVA to service its debt. Investor Relations was also established to ensure that TVA's more than 85,000 individual and institutional investors receive timely, accurate and complete information about TVA's financial and competitive position, business strategies and goals, while also providing a mechanism for investors to ask questions and provide feedback.

Several avenues of communication have been established to enable a two-way exchange of information:

- TVA distributes annual and quarterly financial reports to investors, customers, financial analysts, investment bankers, members of Congress and other key stakeholder groups.
- TVA established a toll-free investor line to respond to investor needs and concerns and to provide additional information about TVA. In response to those needs, investors receive a variety of information including financial statements, bond offering circulars and general information on the corporation.
- TVA is providing financial and investor information through its home page on the Internet. Documents available on the Web include the Annual Report, quarterly reports, TVA Fact Sheet, Corporate Profile, and bond offering circulars.

CONCLUSION

TVA has overcome many challenges in its long proud history. TVA's partnership with the residents of the Tennessee Valley has demonstrated the success of TVA's integrated approach to regional natural resource management. TVA's public power partnerships with its municipal and cooperative distributors have provided the low-cost, reliable electric energy that has fueled economic development and improved the standard of living for millions of Americans.

TVA is preparing to face the challenges of the future by developing closer partnerships with its stakeholders. TVA will meet customer demands for the delivery of quality products and services at competitive prices. TVA will be a steward of federal assets in the Tennessee Valley, fueling sustainable development today while preserving natural resources for future generations.

As new information becomes available on national policy and stakeholder preferences concerning TVA's resource management responsibilities and on the role of public power under electric utility deregulation, TVA will revise this plan to ensure that it continues to meet the needs of the Tennessee Valley.